abcam

Product datasheet

Recombinant human HDAC4 protein ab104029

1 References 画像数 2

製品の詳細

製品名 Recombinant human HDAC4 protein

生理活性 The Specific activity of ab104029 was determined to be 60 RLU/min/ng.

精製度 > 95 % SDS-PAGE.

Purity was determined to be >95% by densitometry. Affinity purified.

発現系 Baculovirus infected Sf9 cells

アクセッション番号 <u>P56524</u>

タンパク質長 Protein fragment

Animal free No

由来 Recombinant

生物種 Human

予測される分子量 77 kDa including tags

領域 612 to 1084

タグ GST tag N-Terminus

特性

Our Abpromise guarantee covers the use of ab104029 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション Functional Studies

SDS-PAGE

製品の状態 Liquid

前処理および保存

保存方法および安定性 Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.307% Glutathione, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCI, 0.00292%

EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

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関連情報

機能 Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones

(H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Involved in muscle maturation via its interaction with the myocyte enhancer factors such as MEF2A, MEF2C and

MEF2D.

組織特異性 Ubiquitous.

関連疾患 Defects in HDAC4 are the cause of brachydactyly-mental retardation syndrome (BDMR)

[MIM:600430]. A syndrome resembling the physical anomalies found in Albright hereditary osteodystrophy. Common features are mild facial dysmorphism, congenital heart defects, distinct

brachydactyly type E, mental retardation, developmental delay, seizures, autism spectrum disorder, and stocky build. Soft tissue ossification is absent, and there are no abnormalities in

parathyroid hormone or calcium metabolism.

配列類似性 Belongs to the histone deacetylase family. HD type 2 subfamily.

ドメイン The nuclear export sequence mediates the shuttling between the nucleus and the cytoplasm.

翻訳後修飾 Phosphorylated by CaMK4 at Ser-246, Ser-467 and Ser-632. Phosphorylation at other residues

is required for the interaction with 14-3-3.

Sumoylation on Lys-559 is promoted by the E3 SUMO-protein ligase RANBP2, and prevented by

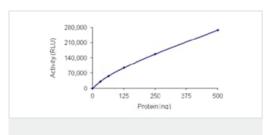
phosphorylation by CaMK4.

細胞内局在 Nucleus. Cytoplasm. Shuttles between the nucleus and the cytoplasm. Upon muscle cells

differentiation, it accumulates in the nuclei of myotubes, suggesting a positive role of nuclear HDAC4 in muscle differentiation. The export to cytoplasm depends on the interaction with a 14-3-3 chaperone protein and is due to its phosphorylation at Ser-246, Ser-467 and Ser-632 by

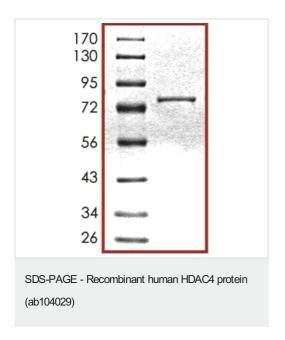
CaMK4. The nuclear localization probably depends on sumoylation.

画像



Functional Studies - Recombinant human HDAC4 protein (ab104029)

Kinase Assay demonstrating specific activity of ab104029.



SDS-PAGE showing ab104029 at approximately 77kDa.

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